CLAIMS

1. An application development system for a medical imaging system, which comprises:

a component library for storing components written in an object-oriented programming language; and

5   a visual component assembler for displaying in a framework area components in the component library and enabling a user to select components in the framework area and assemble them in a workspace area, and the visual component assembler being operable to persist components in the work area to form an application program for the

10 medical imaging system.

2. The system as recited in claim 1 in which the visual component assembler also displays a properties area and enables a user to select a component in the framework area and display a set of properties associated with the selected component in the properties area.

3. The system as recited in claim 1 in which the persistence is performed by serializing components in the framework area.

4. The system as recited in claim 3 in which the serializing includes storing a hierarchical relationship between application components and storing their properties.

5. The system as recited in claim 2 which includes a property editor which enables a user to change the properties displayed in the properties area.

6.   The system as recited in claim 5 in which one of the properties displayed in the properties area invokes a visual representation of the component, and the system includes means for displaying the visual representation.

7.   The system as recited in claim 6 in which the visual representation is a waveform and the means is a waveform plotter.

8.   The system as recited in claim 7 which includes a display having a screen on which the framework area, the workspace area and the properties area are displayed.

9.   The system as recited in claim 8 in which the waveform plotter produces a window on the display screen in which the waveform appears.

10.   The system as recited in claim 7 in which the property editor is operable to change the visual representation automatically when another property is changed.

11.   The system as recited in claim 1 in which the object-oriented programming language is Java™.

12.   The system as recited in claim 3 in which the means for persisting employs a Java™ object serialization mechanism.

13.   A system for producing an application program for a magnetic resonance imaging system, which comprises:

a memory for storing a library comprising components written in an object-oriented programming language;

5   a workstation having a display, an input device and a processor programmed to perform application development functions, the application development program including:

a visual component assembler for displaying in a framework area on the display icons representing components in the component library and

10 responsive to directions from a user entered through the input device to select components and assemble icons representative of the selected components in a workspace area displayed on the display; and for persisting the selected components to form an application program.

14.   The system as recited in claim 13 in which the persistence is performed using a serialization mechanism which stores the application program.

15.   The system as recited in claim 13 in which the visual component assembler also displays a properties area on the display and it enables a user to select a component and display properties associated with the selected component in the properties area.

16.   The system as recited in claim 15 in which the application development program also includes a property editor which enables a user to input data through the input device to change property values displayed in the properties area.

17. ~~The~~ The system as recited in claim 16 in which one of the properties displayed in the properties area is a visual representation of the component and the application development program also includes a waveform plotter for displaying the visual representation.

18. The system as recited in claim 17 in which the waveform plotter produces a window on the display in which the visual representation is produced.

19. The system as recited in claim 17 in which the property editor is operable to change the visual representation automatically when another property is changed.

add
B1